

REMARKS

This Amendment is fully responsive to the non-final Office Action dated February 6, 2009, issued in connection with the above-identified application. Claims 1-11 are pending in the present application. With this Amendment, claim 2 has been amended. Claim 2 has been amended to address the rejection under 35 U.S.C. 112, second paragraph. No claims were amended to address the rejection under 35 U.S.C. 102(b). No new matter has been introduced by the amendments made to the claim 2. Favorable reconsideration is respectfully requested.

In the Office Action, claim 2 has been rejected under 35 U.S.C. 112, second paragraph, for being indefinite. Specifically, the Examiner alleges that the limitation “increased in predetermined steps,” is vague and indefinite. Claim 2 has been amended to clarify that pressure applied to the smoothing plate is “increased in predetermined stages of pressure change.” The changes to claim 2 are fully supported by the Applicants’ disclosure (see ¶ [0021]). Withdrawal of the rejection to claim 2 under 35 U.S.C. 112, second paragraph, is respectfully requested.

In the Office Action, claims 1-11 have been rejected under 35 U.S.C. 102(b) as being anticipated by Keiichi (Japanese Patent Application No. 2000-332387, “Keiichi”). The Applicants assert that Keiichi fails to disclose or suggest all the features recited in at least independent claim 1. Claim 1 recites the following features:

“[a] method for manufacturing a printed wiring board which includes forming a thermosetting resin layer so as to fill spaces between circuit patterns formed on a surface of the printed wiring board, heating and curing the resin layer, and then polishing the cured resin layer covering the circuit patterns, thereby exposing the circuit patterns, wherein the step of heating and curing the resin layer comprises:

maintaining the resin layer at a non-curable temperature where the resin layer is pressed via a smoothing plate in a reduced pressure environment;

heating the resin layer in the pressed state to a curing temperature at which the resin layer is cured;

introducing outside air into the reduced pressure environment while maintaining the pressed state and the curing temperature;

reducing the pressure applied to the smoothing plate while maintaining the curing temperature; and

cooling the resin layer,

wherein a metallic foil with a roughened surface facing the resin layer is superposed on the resin layer.” (Emphasis added).

The present invention (as recited in independent claim 1) is distinguishable over the cited prior art in that the method of the present invention introduces outside air into the reduced pressure environment while maintaining the pressed state and the curing temperature; and reduces the pressure applied to the smoothing plate while maintaining the curing temperature.

By adopting the process of “introducing outside air into the reduced pressure environment while maintaining the pressed state and the curing temperature,” the surface of the resin layer is cooled by the introduced outside air. As a result, the surface of the resin layer is set (or is hardened) and prevents excessive outflow of resin (see ¶ [0011] of the Applicants’ disclosure).

Additionally, excessive outflow of resin can be prevented also by adopting the process of “reducing the pressure applied to the smoothing plate while maintaining the curing temperature.” No such features or advantages of the present invention (noted above) are believed to be disclosed or suggested by the cited prior art.

In the Office Action, the Examiner relies on Keiichi for disclosing or suggesting all the features of independent claim 1. However, Keiichi discloses a method for forming a resin layer on a printed wiring board so as to fill gaps between circuit patterns formed on the wiring board. More specifically, in Keiichi, a vacuum press step presses a flat and smooth plate to the resin layer in a low pressure atmosphere. Additionally, a step of cutting the resin layer, and a step of polishing the resin layer are performed after removing the flat and smooth plate, thereby exposing the circuit patterns.

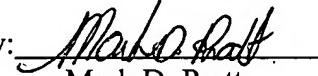
However, nowhere does Keiichi disclose or suggest the process of “introducing outside air into the reduced pressure environment while maintaining the pressed state and the curing temperature”; or the process of “reducing the pressure applied to the smoothing plate while maintaining the curing temperature.” Thus, Keiichi fails to address the problem of excessive

outflow of resin by adopting the above processes of the present invention (as recited in independent claim 1).

In light of the above, the Applicant respectfully submits that all the pending claims are patentable over the prior art of record. The Applicants respectfully request that the Examiner withdraw the rejections presented in the outstanding Office Action, and pass the application to issue. The Examiner is invited to contact the undersigned attorney by telephone to resolve any remaining issues.

Respectfully submitted,

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